

ABSTRACT OF THE DISCLOSURE

5 The invention relates to an amplification optical fiber that is suitable for amplification of signals in the L-band, that has the effect of suppressing normal four-wave mixing (FWM) occurring between signals, and that has the structure for effectively suppressing occurrence of non-degenerative FWM as well, and a fiber optic amplifier including the same. A fiber optic amplifier according to the present invention

10 incorporates an amplification optical fiber having a core region doped with a rare earth element, a zero-dispersion wavelength of not more than a wavelength of pumping light, and an effective cutoff wavelength of 1.1 μm or more but not more than the wavelength of the

15 pumping light. Not only the normal FWM but also the non-degenerative FWM is effectively suppressed by application of the amplification optical fiber.